To: MICHIE Ryan [Michie.Ryan@deq.state.or.us]; OSTER Eugene P [FOSTER.Eugene@deq.state.or.us]; N=Alan Henning/OU=R10/O=USEPA/C=US@EPA;LOBOY Zach [LOBOY.Zach@deq.state.or.us]; OBOY Zach [LOBOY.Zach@deq.state.or.us]; N=Leigh Woodruff/OU=R10/O=USEPA/C=US@EPA;CN=Helen Rueda/OU=R10/O=USEPA/C=US@EPA;CN=Jayne Carlin/OU=R10/O=USEPA/C=US@EPA;CN=David Croxton/OU=R10/O=USEPA/C=US@EPA[]; N=Helen Rueda/OU=R10/O=USEPA/C=US@EPA;CN=Jayne Carlin/OU=R10/O=USEPA/C=US@EPA;CN=David Croxton/OU=R10/O=USEPA/C=US@EPA[]; N=Jayne Carlin/OU=R10/O=USEPA/C=US@EPA;CN=David Croxton/OU=R10/O=USEPA/C=US@EPA[]; N=David Croxton/OU=R10/O=USEPA/C=US@EPA[]
Cc: []
From: CN=David Powers/OU=R10/O=USEPA/C=US
Sent: Wed 6/15/2011 4:29:33 PM
Subject: Fw: Potential Opportunity for EPA-funded Road Inventory & Analysis

http://www.fs.fed.us/GRAIP/downloads/case_studies/LegacyRoadsMonitoringStudies.shtml Link http://www.fs.fed.us/GRAIP/index.shtml) in FY12. Their geographic area of interest is the Coast Range and Rogue-Umpqua Basin. Results of this effort would be very useful for better quantifying the effects of roads in priority watersheds and prioritizing http://www.fs.fed.us/GRAIP/downloads/case_studies/WatershedStudies.shtml. Those should give you an idea of the capabilities of this coupled inventory and modeling approach. Barb and Caty may also be able to provide some insights on the utility of this a http://www.fs.fed.us/GRAIP/downloads/case_studies/LegacyRoadsMonitoringStudies.shtml

Ryan et. al., - As I mentioned on our last call, EPA HQ has asked whether funding for GRAIP analysis in the OR coastal basins would be a priority. I told them yes especially in the mid-Coast, and touched base with the USFS on where they were focused on WQ restoration in the coastal basins (see USFS response below). It may be tough to get private forest landowners to allow GRAIP analysis on their forest land but the US Forest Service is ready and willing. Niagra Creek is in Siuslaw NF but I didn't remember whether the Nestucca would be covered under the mid-coast TMDL. Is it and if so would it be a DEQ priority? Note also potential areas in the Umpqua, Jackson Creek, and Illinois River. Other considerations could be whether the areas have LiDAR or other data that could be used to pursue a "GRAIP-lite" effort, areas that would be representative of distinct geology or landform, areas where key WQ/Salmon issues dominate, and areas where restoration will be focused. DEQ's perspective is a major factor in whatever EPA would consider. Lets discuss soon. Dave

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----- Forwarded by David Powers/R10/USEPA/US on 06/15/2011 08:55 AM -----

From: Brian Staab <brianstaab@fs.fed.us>
To: David Powers/R10/USEPA/US@EPA, Charlie Luce <cluce@fs.fed.us>, Tom Black <tblack@fs.fed.us>
Date: 06/10/2011 06:18 PM
Subject: Fw: Potential Opportunity for EPA-funded Road Inventory & Analysis

Dave.
As you can see below, there's strong interest in a whole watershed GRAIP inventory in FY12. All three

Forests (RRS, SIU, UMP) raised their hands. Specific candidate watersheds include:
- Niagra Creek on the SIU (see rationale below)
- Upper South Umpqua and Jackson Creek on the UMP (see rationale below)
- East Fork Illinois on the RRS.

From the SIU re: Niagra Creek:
We'd like to apply to do the GRAIP study in Niagara Creek for the following reasons:
1. The geology of Niagara Creek is mixed fine-grained sediments and basalt layers. It is more prone to earthflow slumps. It is a different geology and geomorphology as compared to N Fork Siuslaw, and is representative of a lot of the Hebo District.
2. The majority of ownership (over 90%) is Forest Service ownership; therefore, the road treatments will be consistently applied.
3. There is a high road density, and a variety of ridgetop and headwater crossing mid-slope roads.
4. The Nestucca Watershed is currently in a planning phase for a large-scale landscape restoration effort, and road restoration is being planned for this area.

The North Fork Siuslaw watershed geology is representative of most of the southern portion of the Siuslaw NF.
The Niagara Creek drainage is a different geology/geomorpholoyg from the North Fork Siuslaw, and representative of most of the northern portion of the Forest. For the purposes of evaluating the Relative Bed Stability method that is being considered to inform sediment TMDL's in the Coast Range, it would be advantageous to have two different areas with a GRAIP study.
(From me: They may also have LiDAR which is a benefit).

From the UMP re: Upper South Umpqua and Jackson Creek:
Two of our focus/priority watersheds, which are also NWFP "Key Watersheds", where we would desire the Road Inventory and Analysis are Upper South Umpqua and Jackson Creek. Both are 5th field watersheds at our Tiller RD, are the focus of wide-spread aquatic restoration, have "dated" Watershed Analyses (which this would add to greatly), and have a lot of road milage (much of which we have identified as "problematic"). The proposed Inventory and Analysis would greatly assist in developing a effective, long-term restoration strategy in these important areas.

From me:
Besides the high value of this effort in informing local watershed/road planning, we ought to look at this in a broader context:
1) What is of greatest interest ecologically and programmatically to EPA and FS? For example, programmatically, SIU project would again inform TMDLs and the degree of connection between hillslope erosion and instream RBS. But S. OR is of very high ecological value.
2) How can this effort best inform our Legacy Roads monitoring program? As you can see from the map below, we've already got 5 whole watershed studies (2 in R6: Granite on UMA, Nfk Siuslaw on SIU), plus 46 individual road segments included in our Legacy Roads monitoing program. It would seem that going to a very different place from those ones would maximize the information that we obtain from this multi-Regional study. Niagra is quite different geologically from Nfk. Siuslaw, but S. OR is equally different if not moreso geologically, and then you have the significant climatic difference.

http://www.fs.fed.us/GRAIP/downloads/case_studies/LegacyRoadsMonitoringStudies.shtml

Let's talk once you hear more about funding.

Regards.
Brian
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----- Forwarded by Brian Staab/R6/USDAFS on 06/10/2011 05:58 PM -----
Brian Staab/R6/USDAFS
06/10/2011 05:45 PM

To Al Johnson/R6/USDAFS@FSNOTES, Barbara J Ellis-Sugai/R6/USDAFS@FSNOTES, Chris S Park/R6/USDAFS@FSNOTES, Jeff Dose/R6/USDAFS@FSNOTES, Joy E Archuleta/R6/USDAFS@FSNOTES, Kami S Ellingson/R6/USDAFS@FSNOTES, Susan J Maiyo/R6/USDAFS@FSNOTES
cc Charlie Luce/RMRS/USDAFS@FSNOTES, Tom Black/RMRS/USDAFS@FSNOTES, Caty F Clifton/R6/USDAFS@FSNOTES
Subject Re: Potential Opportunity for EPA-funded Road Inventory & AnalysisLink

Hi All.
I received responses back from all 3 Forests and you're all interested in a whole watershed, road inventory/assessment with GRAIP. Glad to see the strong interest, as I think this is an important tool for some applications. That said, I don't think we'll be able to support 3 watershed inventories with the funds EPA is projecting they'll have in FY12. So, I'll need to work with them and others to decide which of the watersheds you identified are the highest priorities. All of them are very good candidates. We just need to figure out which one best meets your local objectives as well as broader objectives at the Regional scale (both FS and EPA).

I'll talk more with Dave Powers at EPA as we hear more re: funding likelihood and where he thinks EPA has the greatest interest. After that, I'll let you know where we're headed.

Regards.
Brian
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- National Research Council, 2008
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Brian Staab/R6/USDAFS
05/31/2011 05:34 PM

To Kami S Ellingson/R6/USDAFS, Barbara J Ellis-Sugai/R6/USDAFS, Joy E Archuleta/R6/USDAFS, Jeff Dose/R6/USDAFS, Chris S Park/R6/USDAFS, Susan J Maiyo/R6/USDAFS, Al Johnson/R6/USDAFS
cc Charlie Luce/RMRS/USDAFS@FSNOTES, Tom Black/RMRS/USDAFS@FSNOTES, Caty F Clifton/R6/USDAFS@FSNOTES
Subject Potential Opportunity for EPA-funded Road Inventory & Analysis

Hi All.
I received a call from Dave Powers at EPA today. He indicated that they may be interested in funding a watershed-scale road inventory & analysis using the RMRS Geomorphic Road Analysis and Inventory Package (GRAIP, http://www.fs.fed.us/GRAIP/index.shtml) in FY12. Their geographic area of interest is the Coast Range and Rogue-Umpqua Basin. Results of this effort would be very useful for better quantifying the effects of roads in priority watersheds and prioritizing road segments for treatment within those areas. Please let me know if you're interested in having this type of assessment done on your Forest in FY12 and, if so, which watershed and why (e.g., getting ready for restoration planning in a priority watershed,

TMDL, etc.).

To help inform your decision, here's a few more details regarding this tool. It uses detailed field inventories and a suite of GIS-based erosion models to quantify the following road impact/risk metrics: hydrologic connectivity, fine sediment production and delivery, gully risk, shallow landslide risk, and stream crossing risk. To date, it's been used in Region 6 for two separate, but related purposes:
1) Prioritizing road segments for treatment in priority/focus watersheds, as described above. This has been done in the Wall Creek watershed on the UMA and a similar effort is underway in the Siuslaw Basin on the SIU. Reports from these and other sites outside R6 are available here: http://www.fs.fed.us/GRAIP/downloads/case_studies/WatershedStudies.shtml. Those should give you an idea of the capabilities of this coupled inventory and modeling approach. Barb and Caty may also be able to provide some insights on the utility of this approach.
2) Quantifying the effectiveness of Legacy Roads and Trails treatments (deco, stormproofing) in reducing the road risk/impact metrics described above. Instead of inventorying whole road systems, for this study, we're doing the inventory and modeling on treated road segments, before and after the treatments, and using the difference in those metrics as a measure of treatment effectiveness. More details regarding that effort is available here:
http://www.fs.fed.us/GRAIP/downloads/case_studies/LegacyRoadsMonitoringStudies.shtml

As we move forward with implementing road treatments in Wall Creek and the Siuslaw Basin, we plan to also conduct post-treatment inventories and modeling on the treated road segments. Then we'll be able to quantify risk/impact reduction at both the site and watershed scales.

Funding is not guaranteed for this and its no big hurry, but please let me know if your interested and if so, where and why. Then I'll talk more with Dave and RMRS.

Regards.
Brian
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